

PIPE HANGERS & SUPPORTS



GRINNELL COMPANY
INC.



GRINNELL COMPANY, INC.

EXECUTIVE OFFICES
PROVIDENCE, R. I.

OFFICES, PLANTS AND BRANCHES

ALBANY, N. Y.
ATLANTA, GA.
AUBURN, R. I.
BALTIMORE, MD.
BOSTON, MASS.
BUFFALO, N. Y.
CHARLOTTE, N. C.

CHICAGO, ILL.
CINCINNATI, OHIO
CLEVELAND, OHIO
COLUMBIA, PA.
DALLAS, TEX.
DETROIT, MICH.
HARTFORD, CONN.

INDIANAPOLIS, IND.
KANSAS CITY, MO.
KEARNY, N. J.
MILWAUKEE, WIS.
MINNEAPOLIS, MINN.
NEW ORLEANS, LA.
NEW YORK, N. Y.

PHILADELPHIA, PA.
PITTSBURGH, PA.
PROVIDENCE, R. I.
ROCHESTER, N. Y.
ST. LOUIS, MO.
ST. PAUL, MINN.
WARREN, OHIO

LOS ANGELES, CAL.

GRINNELL COMPANY OF THE PACIFIC
SAN FRANCISCO, CAL. OAKLAND, CAL.

SEATTLE, WASH.

GRINNELL COMPANY OF CANADA, LTD.
MONTREAL, QUE. OSHAWA, ONT. TORONTO, ONT. VANCOUVER, B. C. WINNIPEG, MAN.

Pipe Hangers and Supports

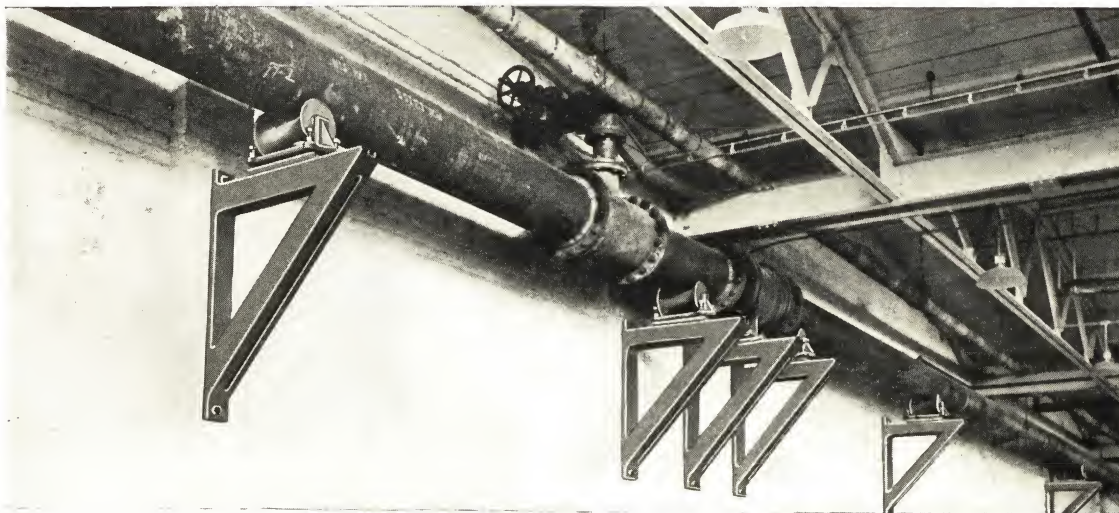
● Effect of Correct Piping on Maintenance

The consistent and lasting performance of piping systems is an important factor in the economical maintenance and efficient operation of a building. This desired result, so far as piping is concerned, is only obtainable where the architect makes certain that heating, service, sprinkler and power piping lines are *originally adjusted* to established levels and pitches and where the circulation system is made *permanently and easily adjustable* at every point.

● Efficiency of Correct Piping Supports and Hangers

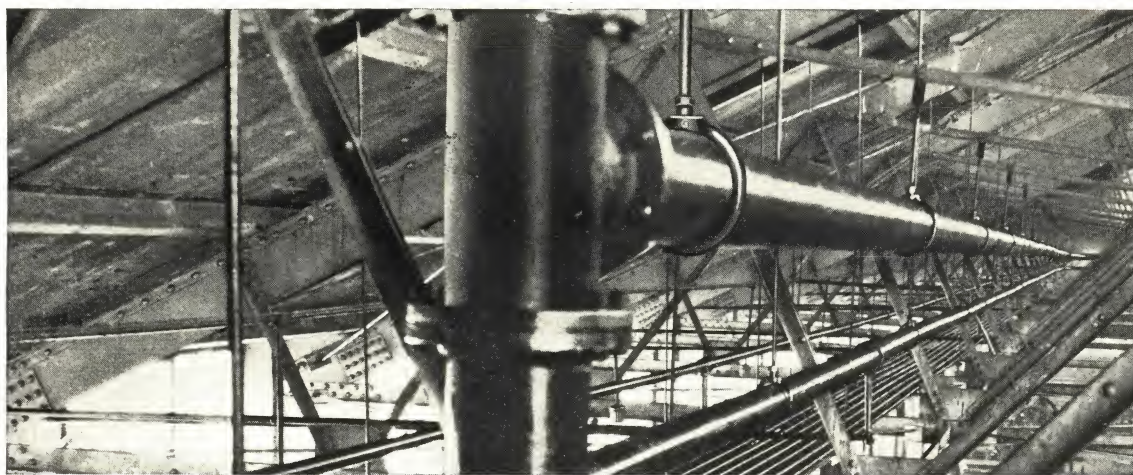
Of great importance, too, is the use of efficient anchorage methods for pipe hangers in view of the eventual settling, warping or shifting movement in the structure which may easily weaken or destroy poorly or insecurely hung lines.

Where trouble from such conditions has occurred, the reason is apt to be found in the lack of adjustability during installation, or more often after piping was erected.



Typical Installation of Welded Steel Brackets Anchored with Bolts Through Brick Wall and Carrying Heavy Pipe Lines on Adjustable Pipe Stands

Expansion and contraction is fully provided for and the feature of adjustability makes it possible to establish and maintain correct alignment at all times



Perfect Alignment in a Thousand Feet of Heating Pipe Insured by the Use of Adjustable Pipe Hangers

ADJUSTABLE PIPE HANGERS vs. STRAP HANGERS

The Old, Inefficient Method Using Strap Iron Hangers Results

- 1** Unsightly and careless workmanship.
- 2** No standard method of anchorage, resulting often in expensive and inefficient hanging.
- 3** Only crude adjustments are possible, affecting the efficiency of installation.
- 4** Ultimate sagging of pipe lines, difficult to correct.
- 5** Weight of pipe unevenly distributed on hangers.
- 6** No provision for expansion and contraction, subjecting hanger to enormous overload and strain.
- 7** Higher labor costs to install and maintain.
- 8** Damage and expense due to sagging or other disturbance to the lines.

The Modern, Efficient Method Using Adjustable Pipe Hangers Results

- 1** Neat and efficient installation.
- 2** As explained hereinafter, Grinnell Company has developed practical types of hanger anchorages.
- 3** Minute adjustments can be made at all times, making it possible to line up pipe quickly and exactly.
- 4** Sagging in pipe line can be corrected instantly.
- 5** Weight of pipe evenly distributed by simple adjustment.
- 6** Full provision for expansion and contraction.
- 7** Rapid installation and easy maintenance means low labor cost.
- 8** Damage and expensive leaks prevented by adjustability which makes it possible to keep pipe lines in correct position at all times.

ADJUSTABLE FEATURES OF GRINNELL HANGERS

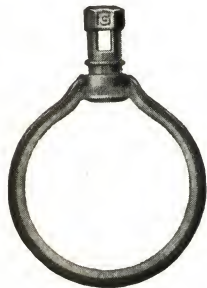
The feature of adjustability in Grinnell hangers makes it possible to install and "true up" pipe lines in less time than that represented by the old method of strap iron hangers with which it was necessary to prop up the lines and trust to good fortune that the crude adjustments possible would establish proper pitches and rigidity. Thus, through the elements of time-saving and adaptability, the use of adjustable pipe hangers represents no greater cost than the old system and carries with it positive assurance of a considerable saving in maintenance and operation cost and effectually secures the trimness of appearance which the architect finds so desirable.

It is a plain fact that the adjustable feature of any

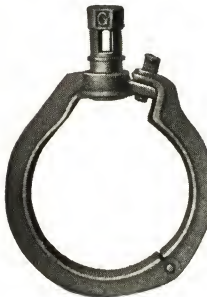
pipe line must be found in the supporting hangers and that the correct provision of this adjustment factor will not only facilitate proper installation but will afford a degree of controlled flexibility which without cost may easily eliminate sagging or improper leverage conditions as they develop.

The various types of adjustable pipe hangers illustrated herewith represent the solutions of practical piping problems of every kind. Having once examined the following pages and having been assured of the correctness and adaptability of this line of adjustable pipe hangers, the architect can forget the detail of pipe line installation and insure its efficiency and correctness by using the simple specifications set forth on page 10.

GRINNELL ADJUSTABLE PIPE HANGERS



**No. 101
Adjustable
Swivel
Ring**



**No. 104
Adjustable
Swivel Ring—
Split Type**



**No. 107
Split Pipe
Ring with
Socket**



**No. 138
Extension
Split
Ring**



**No. 260
Adjustable
Wrought
Clevis Hanger**



**No. 105
Adjustable
Clip
Ring**

No. 101 Adjustable Swivel Ring—Malleable Iron

The Adjustable Swivel Ring is the modern efficient method of providing for the most minute adjustments in hanging pipe lines resulting in the perfect alignment of pipe. The unusual feature of this ring is the swivel shank which allows an adjustment of about 2 in. by simply turning the nut on the shank to the left or right. No temporary support is necessary while making adjustments—a fact which insures careful and rapid installation. The ring and shank, while two separate pieces, are cast as one unit. The swivel shank automatically locks when pipe is in desired position, preventing loosening due to vibration and assuring proper pitch of line at all times.

Made for use with $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6 and 8-in. pipes. This Adjustable Swivel Ring is used with practically every type of ceiling flange, expansion case, insert and other pipe anchorages shown on the following pages.

Considering its adjustable features, compact strength, and moderate price we believe that there is no other pipe ring on the market which can be compared to the Adjustable Swivel Ring as an efficient, economical and labor saving device. The use of this ring means lower labor costs and decreased maintenance.

No. 104 Adjustable Swivel Ring—Split Type—Malleable Iron

The Split Ring Type of Adjustable Swivel Ring can be used with coach screw rod or machine threaded rod in the same way as the solid ring type shown above. It has the same style of swivel shank with the same adjustable and automatic locking features.

The hinging of the ring is somewhat off center, which provides sufficient seating to hold the pipe before closing the ring. A wedge type pin is loosely but inseparably cast into the hinged section for fastening this section after the pipe is in place. Made for holding $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6 and 8-in. pipes.

No. 107 Split Pipe Ring with Socket—Malleable Iron

This is a combination split ring and socket. The socket is bolted to the ring, as shown in the illustration, and is furnished tapped for pipe thread or rod thread, as specified.

Made for holding $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6 and 8-in. pipes.

No. 138 Extension Split Ring—Cast Iron

This Extension Split Ring is made for holding $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, 4, 5 and 6-in. pipes. It can be furnished with a ceiling flange with or without nipple.

No. 260 Adjustable Wrought Clevis Hanger—Wrought Steel

Clevis Hangers provide for a vertical adjustment of at least $1\frac{1}{2}$ in., which adjustment may be made either before or after pipe is in place. No temporary support of pipe line is necessary while adjustments are being made.

Hanger rods and supporting nuts may be locked into position after adjustment by use of the upper nuts. Made for holding $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6 and 8-in. pipes:

No. 105 Adjustable Clip Ring—Malleable Iron

The Adjustable Clip Ring is used with an Adjustable Clip Base and a Square Head Hanger Rod, and allows about $1\frac{1}{2}$ in. adjustment, which adjustment can be easily made *after* pipe is installed by raising pipe until head of rod is close to ceiling and turning rod.

It is made for holding $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipes only.

ANCHORS AND CLAMPS FOR PIPE HANGERS

No. 100 Adjustable Coach Screw Clip

No. 100 is a combination of Adjustable Swivel Ring No. 101 and Coach Screw Rod No. 142. It is sold complete as illustrated for hanging $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipes.

No. 102 Adjustable Swivel Ring Hanger

No. 102 is a combination of Adjustable Swivel Ring No. 101, Machine Threaded Rod No. 140, Spring Ceiling Plate No. 133 and U. S. Expansion Case No. 117. It is sold complete as illustrated for hanging $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipes.

No. 106 Adjustable Clip Hanger

No. 106 is a combination of Adjustable Clip Ring No. 105, Square Head Hanger Rod No. 144 and Adjustable Clip Base No. 116. It is made for hanging $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipes.

Split Ring Hangers

No. 127—This is a combination of Split Pipe Ring with Socket No. 107 and Ceiling Flange No. 128 (pipe threaded). It is made for hanging $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6 and 8-in. pipes.

No. 132—This is a combination of I-Beam Clamp No. 131, Split Pipe Ring No. 108 and Sockets No. 110. Can be used with pipe nipple or threaded rod. Made for hanging $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5 and 6-in. pipes.

No. 139—A combination of Extension Split Ring No. 138, a ceiling flange and 4-in. pipe nipple. Made for hanging $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, 4, 5 and 6-in. pipes.

No. 252 Adjustable Wrought U-Pipe Hanger

Designed primarily for hanging pipes from level ceilings or bottom of beams. Provides for 2-in. vertical adjustment. Rugged in construction with ample factor of safety. Each hanger has two drilled holes for screws or bolts and is drilled for hanger rod. Made in 5 sizes for hanging all sizes of pipe from $\frac{3}{4}$ to 12-in., inclusive.

Pipe, Swivel and Swinging Hanger Flanges

These flanges are made in five sizes for hanging all sizes of pipe from $\frac{3}{4}$ to 12 in., inclusive. They are made in the following types:

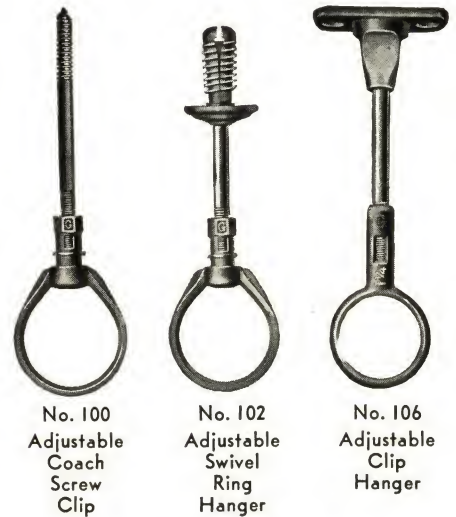
No. 153 (Cast Iron)—Designed primarily for use on level ceilings and provides an adjustment of 1-in. where rod enters flange.

No. 154 (Cast Iron)—A semi-swinging type flange providing for a ceiling angle not greater than five degrees off level in any direction.

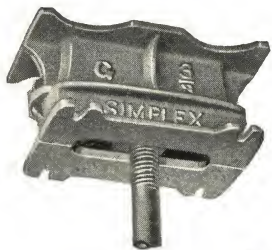
No. 155 Adjustable Swinging Hanger Flange (Malleable Iron)

This is a combination of Flange No. 156 and Extension Piece No. 157. Allows a swing radius of 180 degrees and a 1-in. adjustment of the rod. Made for hanging all sizes of pipe from $\frac{3}{4}$ to 12-in.

No. 158 (Cast Iron)—A full swinging type flange through 180 degrees. Used only with special T-headed Swinging Hanger Flange Rods Nos. 146 and 147.



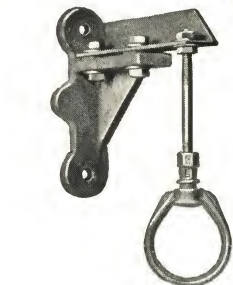
ANCHORS AND CLAMPS FOR PIPE HANGERS



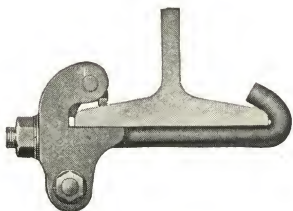
No. 281
Simplex
Concrete
Insert



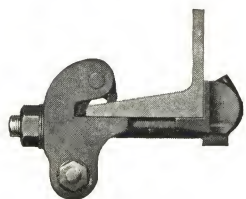
No. 223
Cast Iron
Bracket



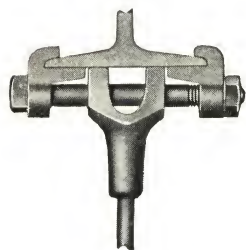
No. 222
Cantilever
Bracket



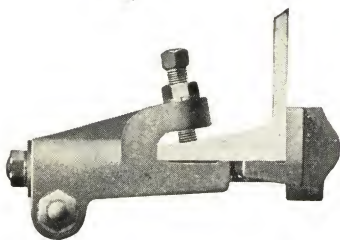
No. 225
Universal
Side
I-Beam
Clamp



No. 226
Universal
Channel
Clamp



No. 217
Center
I-Beam
Clamp



No. 219
Channel
Extension
Clamp

No. 281 Simplex Concrete Insert—Malleable Iron

A quality insert made from rust resisting charcoal malleable iron and offered at an attractive price. It provides a different size body for each size tapping and is used on any job where the size of the tapping required can be definitely determined in advance. The four widely separated nail slots, the low height and large flat bottom surface of this insert all tend to minimize the chance of displacement during construction, whether nailed to wood or pasted to steel forms. To help distribute the load the exterior ends are recessed to receive reinforcements up to 1-in. in diameter. The Simplex is made in a full range of sizes— $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ -in. rod size. The $\frac{7}{8}$ -in. insert should always have reinforcing rods placed under upper flange.

No. 223 Cast Iron Bracket—For 2-in. and Smaller Pipe

This light weight cast iron bracket, while primarily designed for use in connection with open sprinklers on the outside of buildings, is entirely suitable for use in supporting small piping in any service. It can readily be installed on walls, columns or beams.

Bracket made in two lengths, 6 and 9 in. to center of hanger rod, and regularly furnished galvanized, but can be furnished black on order.

No. 222 Cantilever Bracket—Cast Iron—For 2-in. and Smaller Pipe

This consists of Cantilever Bracket No. 221 and angle iron extension for use where lines are located further than $4\frac{7}{8}$ -in. from the wall and up to 18-in. The holes in the bracket are slotted, allowing for lateral adjustment to take care of uneven wall surfaces.

No. 225 Universal Side I-Beam Clamp

This Universal Side I-Beam Clamp has been designed in sizes to fit all Standard and Bethlehem I-beams and for hanging all sizes of pipe from $\frac{3}{4}$ to 12-in., inclusive. Where requirements call for a rod length varying from a few inches to several feet, the Universal Side I-Beam Clamp is used with an Extension Piece, rod, and Adjustable Swivel Pipe Ring.

In case the pipe line must be located so close to the beam that an extension piece is not practical, the proper procedure is to use an Extension Eye-Bolt. Here the adjustment is all made in the Adjustable Swivel Pipe Ring. See illustration No. 101, page 3.

No. 226 Universal Channel Clamp

To meet the frequently recurring need for a strong adjustable clamp for hanging pipe from channels, this Universal Channel Clamp has been developed as a standard unit in the Grinnell Adjustable Hanger Line. It has been designed to fit all Standard structural channels and for hanging all sizes of pipe from $\frac{3}{4}$ to 12 in., inclusive.

Long experience has shown that without such clamps, pipe installation work is constantly demanding the use of special hangers made up for the individual job, a practice which causes unwarranted delay and useless expense. This clamp and also the Channel Extension Clamp shown can be used with (1) Extension Piece, Hanger Rod and Adjustable Swivel Ring; (2) with the Swivel Pipe Ring, and (3) with Extension Eye-Bolt and Adjustable Swivel Ring.

No. 217 Center I-Beam Clamp

This clamp is designed for use wherever it is possible to hang the line directly under the I-beam. It is made for hanging all sizes of pipe from $\frac{3}{4}$ to 2 in., inclusive.

No. 219 Channel Extension Clamp

This type of clamp is usually employed in sprinkler work so that the sprinkler head, which often must come under the channel iron, can be so located because the extension feature provides sufficient space for this purpose. With this clamp the Extension Piece with hanger rod and Adjustable Swivel Ring is usually employed, but the other types described may be used.

The clamp is designed for use with Standard structural channels for hanging $\frac{3}{4}$ to 2-in. pipe only.

GRINNELL ADJUSTABLE WALL COIL HANGERS



No. 160
Adjustable
Wall Coil
Hangers

Adjustable Wall Coil Hangers are furnished with four separate brackets—two for single coils and two for double coils as follows:
Single Coil—No. 160, $2\frac{1}{4}$ in., and No. 161, $6\frac{1}{4}$ in. from wall to center line of coil.

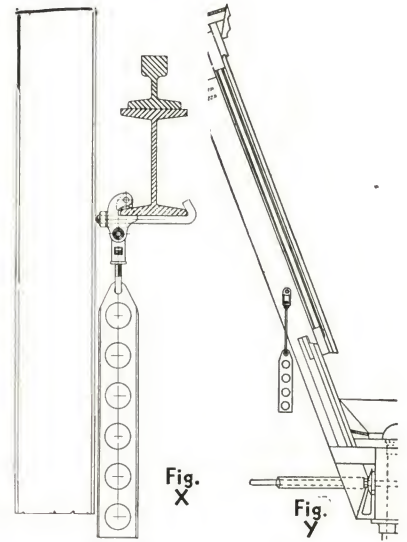
Double Coil—No. 162, $2\frac{1}{4}$ in., and No. 163, $6\frac{1}{4}$ in. from wall to center line of first coil.

Hangers No. 160 and 162 are used on flush or straight walls and No. 161 and 163 on walls with pilasters 4 in. deep.

The adjustable feature is the principal advantage. By turning adjusting nut A, hanger plate can be raised or lowered 1 in. or less to secure perfect alignment of piping and make each hanger carry its own proportion of total weight of heating coils. These hangers can be installed with great saving of labor. It is only necessary to fasten the individual bracket in place by two bolts. On brick or concrete construction one of the bolts can be set in wall during construction or both may be set in wall if template is used.

Grinnell Wall Coil Hangers are all metal—a most desirable feature in buildings of fire resistant construction. The Adjustable Hanger Plates are of steel, channel shaped and offer very little resistance to expansion.

The Adjustable Hanger Plate can be fastened to wood or steel framework of saw-tooth skylights, also to steel columns or struts of trusses, when coils are placed vertically in overhead position. $\frac{1}{2}$ -in. hook bolts are used in supporting the plate from clamp or bracket.



Coil Hung from
Crane Rail Girder

Coil Hung
from Purlin



No. 166
Standard
Type



No. 167
Expansion
Type

GRINNELL HOOK PLATES

Standard and Expansion Types (Cast Iron)

While cheaper than our Adjustable Wall Coil Hangers, these hook plates have neither their strength nor adjustability and the difference in price is usually offset by the added installation cost. The expansion type plates are for supporting wall coils in corners to provide expansion while the standard type are for ordinary work. These plates are made for carrying 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipe and are listed up to 6 branch only—for larger number of branches order two plates of 6 branch or less.



No. 168
Single Hook

Single Hook (Cast Iron)

For supporting $\frac{1}{2}$ to 3-in. pipe. Used mainly from side of beams where no adjustment is necessary. Applied directly to beams with wood or coach screws. Also useful for hanging small lines from walls by attaching to wooden block fastened to the wall.



No. 164
Standard
Type



No. 165
Expansion
Type

GRINNELL RING PLATES

Standard and Expansion Types (Cast Iron)

Although we do not recommend these ring plates for general use, there are cases where they can be used to advantage.

Standard type plates are made for supporting 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipe and expansion type plates for $1\frac{1}{4}$ and $1\frac{1}{2}$ -in. pipe.

For general use, the Adjustable Wall Coil Hanger shown above is preferable—the adjustable features of that hanger making it a practical and adaptable device for hanging coils.

When heating circulation is to be installed in saw-tooth monitor or from crane rail, Adjustable Hanger Plate should be used as shown above, illustrations X and Y.

GRINNELL SADDLE HANGERS

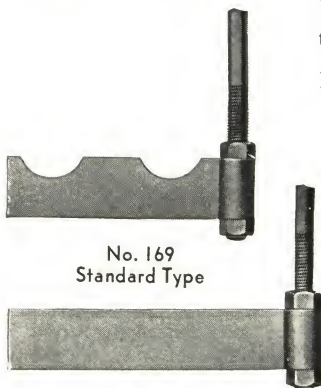
Grinnell Saddle Hangers are made of steel instead of cast iron. The steel bar is shaped at both ends to take the hanger rods. Hex nuts at bottom of rods support the hanger and allow vertical adjustment by turning nuts to right or left.

The standard type of Grinnell Saddle Hanger has recesses punched out for holding the pipe. The expansion type is a plain steel bar for use at corners of coils to take care of sidewise movement due to expansion.

The Saddle Hanger is used in connection with $\frac{1}{2}$ -in. rods and hex nuts on 2 to 8 branch hangers, $\frac{5}{8}$ -in. rods and hex nuts on 9 to 12 branch hangers—and with Expansion Cases, Grinnell Hanger Flanges, Side I-Beam Clamps, etc., for supporting overhead coils.

These Saddle Hangers are exceptionally strong and will not sag. Labor cost of installation is considerably less than with branch rolls and rods.

Saddle Hangers are made for supporting 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-in. pipe only.



No. 169
Standard Type

No. 170
Expansion Type

GRINNELL PIPE ROLLS

Grinnell Single and Branch Pipe Rolls are especially designed to take care of expansion and contraction. Single Pipe Rolls are made to support all sizes of pipe from 1 to 30 in.—Branch Pipe Rolls for 1, 1¼ and 1½-in. pipe only. Rolls are made hollow, which means small surface in contact with rod. The Adjustable Sockets permit vertical adjustment at the roll. The nut at the bottom of the hanger rod fits into a recess in the socket, thus preventing loosening or turning from vibration.

On Branch Pipe Rolls for 7 to 12 branches inclusive, an adjustable hook is provided for a third or center hanger rod.

Expansion Branch Pipe Rolls, No. 172-E, having longer roll rods than No. 172, are for use at corners of coils to permit side movement due to expansion.

Note: See below for Single Pipe Rolls with Special Sockets for use with Pipe overing Protection Saddles.

For 2 in. overhead coils use Saddle Hangers. See preceding page.

TWO-PIPE ADJUSTABLE BRACKETS

This hanger is a combination of two standard pipe rolls and a bracket. It is designed principally for supporting pipe mains in tunnels or against walls and columns, where for convenience or economy it is necessary to carry one pipe directly over the other. Designed to support pipe up to 6 in. The economy of this Two-Pipe Adjustable Bracket lies in allowing the installation of one bracket to take care of two lines. Also this hanger, by means of the pipe roll, will take care of any amount of expansion without buckling or throwing pipe out of alignment.

Note that bracket is constructed so that small pipe can be installed at top and large pipe below, or vice versa.

This is accomplished by slots in the bracket.

The Adjustable Two-Pipe Bracket like most Grinnell hangers, is adjustable, easily installed, compact in construction and economical to use because of its double service.

When ordering always give size of top and bottom pipes.

ADJUSTABLE SWIVEL PIPE ROLLS

The Adjustable Swivel Pipe Roll supplies the need for an adjustable type of pipe roll hanger with single hanger rod. It is designed to support all sizes of pipe from 2½ to 12 in., inclusive. It is unique inasmuch as vertical adjustment can be made by use of the swivel shank at the top of the hanger.

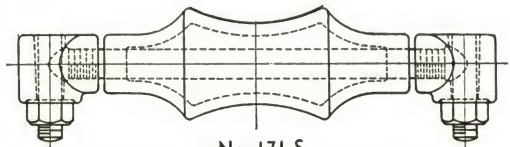
As in the Swivel Pipe Ring No. 101, shown on page 3, the swivel shank automatically locks, preventing loosening due to vibration in the pipe line.

When No. 174 Adjustable Swivel Pipe Rolls are to be used on lines on which pipe covering is to be installed, order hangers for two full sizes larger than pipe. This allows for the installation of 1 in. standard thick covering.

SINGLE PIPE ROLLS WITH SPECIAL SOCKETS FOR USE WITH PIPE COVERING SADDLES

The illustrations show the improved pattern of Grinnell Pipe Covering Protection Saddles designed primarily for high temperature service or where heat losses are to be kept at a minimum. The construction of this saddle makes possible a weathertight and finished job of covering at the points of pipe support. All saddles are 12 in. long and are made of curved steel plates with side edges turned up, and for 8-in. to 24-in. o. d. pipe have a center plate welded in. Saddles are furnished unfilled and should be filled before being put in place either with plastic cement or with sectional covering cut to suit. They are furnished for standard, double standard and double 1½-in. thick covering.

The Single Pipe Roll with Special Sockets is an adaption of our No. 171 Roll. The special sockets are provided to permit the use of standard size hanger rods while allowing the use of larger size rolls required with Grinnell Pipe Covering Protection Saddles for various thicknesses of covering.



No. 171-S
Single Pipe Roll with Special Socket



Pipe
Covering
Protection
Saddles
No. 186
For standard
thick
covering
No. 187
For double
standard
thick
covering
No. 188
For double
1½-in. thick
covering

Type B For 8-in.
Pipe and Larger

Type A For 6-in.
Pipe and Smaller

ADJUSTABLE PIPE ROLL WITH BASE PLATE

No. 185

For supporting heavy piping where expansion and contraction conditions must be met the cast iron Adjustable Pipe Rolls with Base Plates shown herewith, are often used. They are located on floors, piers or tunnel floors, also with special base plates on brackets as shown in illustration on page 1. Both vertical and horizontal adjustment is obtained—the vertical by four adjusting screws as shown and the horizontal by sliding on ends of bolts in base plate.

This pipe support is regularly made to carry 3, 3½, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 18, 20 and 24-in. sizes of pipe.

Larger sizes on application.

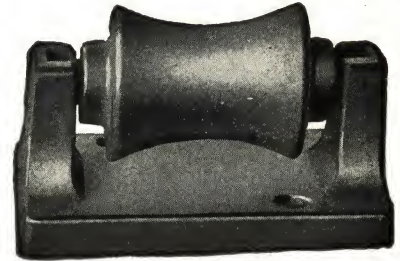


No. 185

PIPE ROLL CHAIR

No. 177

Grinnell cast iron Pipe Roll Chairs are for use in supporting piping when adjustment is not necessary, but where provision must be made for expansion and contraction. They are similar to Pipe Chairs but can be put to more varied use—for high pressure steam blow-off lines and other pipe lines where a pipe support is required. Regularly made for supporting all sizes of pipe from 2 to 18-in. diameter. Larger sizes on application.

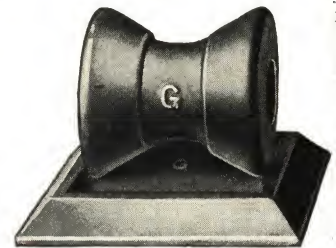


No. 177

PIPE ROLL AND PLATE

No. 180

This cast iron Pipe Roll and Plate is designed for uses similar to Pipe Roll Chair No. 177, described above. It is regularly made for supporting all sizes of pipe from 4 to 24-in. Larger sizes on application.



No. 180

PIPE CHAIR

No. 183

This cast iron Pipe Chair is suitable where no adjustment is required. It is regularly made in all pipe sizes from 2 to 20-in. Larger sizes on application.



No. 183

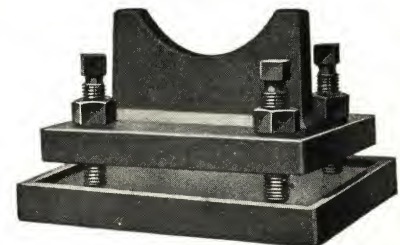
ADJUSTABLE PIPE CHAIR WITH BASE PLATE

No. 184

This Pipe Chair with Base Plate was designed with complete understanding of the need of a suitable pipe support for Blow-Off lines which would be adjustable as well as practical.

The main advantage of this Pipe Chair is, of course, the fact that by adjustment the chair can be brought securely up against pipe or back of fittings after pipe is erected. When thus adjusted it holds pipe line firmly against thrust due to opening of Blow-Off connection.

Regularly made for supporting 3, 4 and 5-in. pipe. Larger sizes on application.



No. 184

GRINNELL WELDED STEEL BRACKETS

Light Weight, No. 194

Designed to support pipe lines up to and including 6-in. size. These brackets may be installed either in position illustrated or reversed as a suspension bracket.

Ends of brackets are drilled to take hanger rods up to and including ¾ in. in diameter, and pipe is ordinarily suspended from this point, but the use of Steel Bracket Clip No. 193 permits hanging pipes 3½ in. or smaller from any other point on the horizontal member.

Medium Weight, No. 195

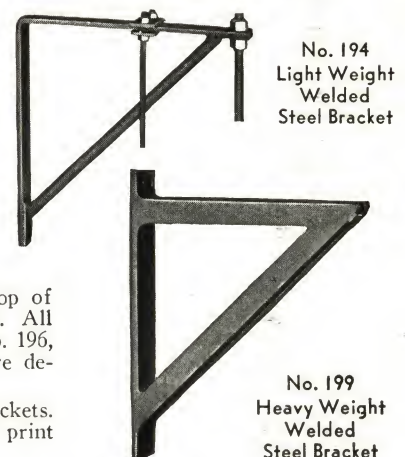
Designed to support a maximum load of 1500 lbs.

These brackets are of the same type and construction as our Heavy Welded Steel Brackets, No. 199, shown below. They may be used with the adjustable pipe stands, anchor chairs, pipe seats, etc., in the same manner as the heavy bracket.

Heavy Weight, No. 199

Heavy Brackets are light in weight as compared with the usual cast iron brackets. Top of bracket and supporting brace are constructed of two angle irons with 1-in. space between. All sizes of the bracket are designed to support a load of 3000 lbs. Adjustable Pipe Stands, No. 196, shown in illustration on page 1, also Anchor Chairs, No. 197, and Pipe Seats, No. 198, are designed to be used in connection with these brackets.

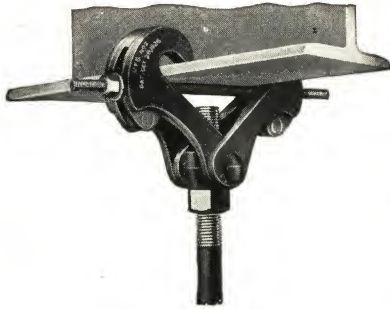
We are in a position to furnish on order practically any size or type of welded steel brackets. Prices will be furnished on application. Applications must be accompanied by sketch or print showing all essential dimensions and necessary details.



No. 194
Light Weight
Welded
Steel Bracket

No. 199
Heavy Weight
Welded
Steel Bracket

GRINNELL U. F. S. I-BEAM CLAMPS

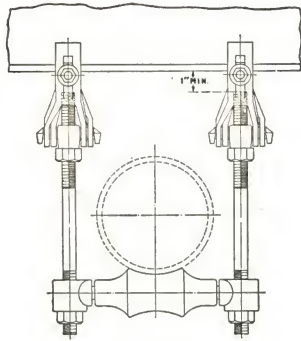


U. F. S. I-Beam Clamp

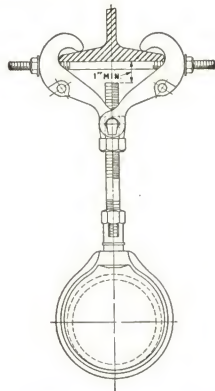
The Grinnell U. F. S. (Universal Forged Steel) I-Beam Clamps are made of forged steel throughout. They have a factor of safety of twelve, as called for by the specifications of the Power Piping Society, based on supporting 12 ft. of extra-heavy pipe of maximum sizes filled with water.

These beam clamps are made in but three sizes for supporting pipes up to and including 24 in. in size. Sizes Nos. 1 and 2 will fit Carnegie Structural I-beams 24 in. x 100 lb. and smaller, and Bethlehem I-beams 15 in. x 54.5 lb. and smaller. Size No. 3 will fit all Carnegie Structural I-beams, Bethlehem I-beams 30 in. x 121 lb. and smaller, and the 30-in. x 135 beam (CB 301) of the Carnegie Beam Section series.

These beam clamps may be used in combination with the Adjustable Wrought Pipe Clamps, No. 251, also with Single Pipe Rolls, No. 171; Adjustable Swivel Pipe Rolls, No. 174; Adjustable Swivel Rings, Nos. 101 and 104; Spring Pipe Hangers, etc.

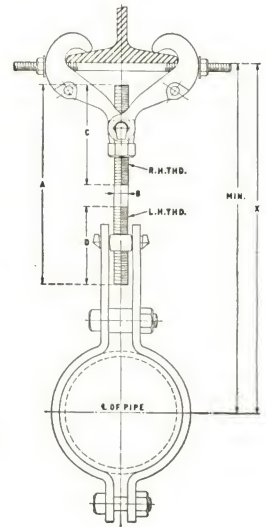


No. 171
Single Pipe Roll



Left:
No. 101
Adjustable Swivel
Ring

Right:
No. 251
Adjustable Pipe
Clamp



Illustrations Showing Applications of U. F. S. I-Beam Clamps with Rods and Three Types of Grinnell Hangers

GRINNELL SPRING PIPE HANGERS —SPRING PIPE ROLL HANGERS

The use of springs in pipe hanger assemblies is recognized by many engineers as an efficient means for absorbing vibration which is often conveyed to piping lines from various causes.

Grinnell Spring Pipe Hangers and Grinnell Spring Pipe Roll Hangers as illustrated represent a convenient means of applying this principle to most types of pipe hangers.

These are furnished standard for all sizes of hanger rods from $\frac{3}{8}$ in. to $1\frac{1}{2}$ in. in diameter and are regularly made for all pipe sizes from 1-in. to 24-in. inclusive.

Grinnell Spring Pipe Hanger, No. 255, includes the steel flanges, spring and outside bolts with nuts. Grinnell Spring Pipe Roll Hanger, No. 256, includes the roll, roll rod, adjustable sockets, springs and cups.

The Spring Pipe Hangers with threaded hanger rods may be used in any hanger combinations which have Grinnell U. F. S. I-Beam Clamps, Grinnell Welded Steel Brackets, Adjustable Wrought U-Pipe Hangers, or some other type of overhead support at the upper end, and Grinnell Adjustable Wrought Pipe Clamps, Adjustable Swivel Rings or Adjustable Swivel Pipe Rolls at the lower end.

The Spring Pipe Roll Hangers may be suspended with threaded hanger rods from any of the clamps, brackets, etc., listed above. When the pipe line is to be insulated, Grinnell Pipe Covering Protection Saddles, Nos. 186, 187, 188, should be used. These are shown on page 7.

Both types of springs can be made to fit many other applications and can be furnished separately at special prices.

Sketch at right shows application of Spring Pipe Hanger as used with U.F.S. I-Beam Clamp and Adjustable Wrought Pipe Clamp. Left hand nut in pipe clamp will, when specified, be furnished with set screw to prevent hanger rod from turning.



No. 255
Spring Pipe
Hanger



No. 256
Spring Pipe Roll Hanger

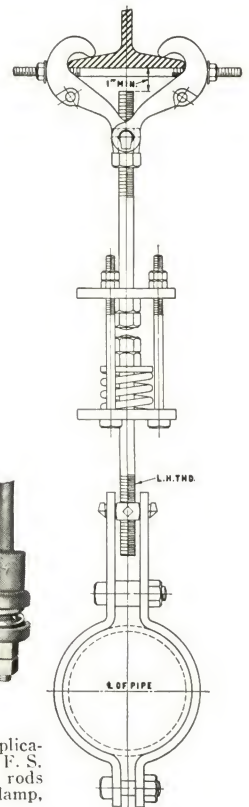


Illustration at right showing application of Spring Pipe Hanger as used with U.F.S. I-Beam Clamp, No. 228, hanger rods and Adjustable Wrought Pipe Clamp, No. 251.

STANDARD SPECIFICATIONS FOR PIPE HANGERS AND SUPPORTS

Piping to be supported by means of hangers or supports which are capable of screw adjustment *after* erection of the pipe.

Hangers

Pipe rings to be made of malleable iron fitted with an adjusting nut of the locking type threaded to take a rod.

Pipe rolls to be provided with threaded nut or with sockets to take threaded rods.

Pipe clamps to be made of heavy steel equipped with a hooked nut threaded to take a rod.

Hangers located overhead to be supported by means of threaded rods fastened to:

(No. 1) *Wooden Construction*—

(a) By the use of proper hanger flanges or brackets attached directly to ceiling or beams with wood or coach screws.

(b) By the use of coach screw threads provided on one end of rods.

(No. 2) *Steel Construction*—

(a) By means of U. F. S. (Universal Forged Steel), or Side I-Beam Clamps or Channel Iron Clamps fastened directly to steel beams or channels.

(b) By means of welded steel brackets fastened to steel columns.

(No. 3) *Concrete Construction*—

By means of malleable iron or steel concrete inserts or of expansion cases placed in the concrete.

Hanger Rod Sizes

No matter what the type of construction the size of rod is to be determined by the size of pipe to be supported as per the following schedule:

¾-in. to 2-in. pipe inclusive.....	¾-in. rod
2½-in. to 3½-in. pipe inclusive.....	½-in. rod
4-in. and 5-in. pipe.....	⅝-in. rod
6-in. pipe.....	¾-in. rod
8-in. to 12-in. pipe inclusive.....	7⁄8-in. rod
14-in. O.D. and 16-in. O.D. pipe.....	1-in. rod
18-in. O.D. pipe.....	1⅛-in. rod
20-in. O.D. pipe.....	1¼-in. rod
24-in. O.D. pipe.....	1½-in. rod
30-in. O.D. pipe.....	1⅞-in. rod

Supports

Piping to be supported from:

(No. 1) *Walls or Columns*—

By means of welded steel brackets and adjustable pipe (roll) stands.

(No. 2) *Floors or Piers*—

(a) By means of adjustable pipe rolls or chairs with bases.

(b) By means of saddle stands or stanchions.

(No. 3) *Ground (between buildings)*—

By means of pipe pole supports and adjustable attachments.

Further Information

Further information, including data sheets, giving dimensions and prices, will be gladly supplied on application.

Other Grinnell Products

The Grinnell Company products also include Sprinkler Systems, Thermoliers (Unit Heaters), Equiflo Valves, Fittings, Fabricated Pipe and Thermoflex Heating Specialties. For these products see Manufacturers' Index.

Grinnell Service

A half century of experience stands in back of all Grinnell products, the benefits of which we offer freely as consultants in any matter pertaining to the use of our products. At each of our sales offices will be found an engineering staff ready to aid in the solution of problems in the various fields of industry covered by the Grinnell Company.

